Outline of the points to be discussed at the Topex/Poseidon SWT meeting
Toulouse, France, Nov. 29-30, 1993.

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A meeting of the Science Working Team on the Topex/Poseidon project will take place November 29-30, 1993, in Toulouse, France.

I will participate in discussions of the current effort being undertaken by the French and US investigators on improving the quality of Topex altimeter sea level measurements in the part related to the EM bias correction. I will point out that the present accuracy of the EM bias correction is much better than it was at the time of the Geosat altimeter mission, and we do see an improvement when we estimate spatial statistics of sea level variations on scales from about 500 km to 20 km, However, when we compare results obtained for different ocean regions, we find that regional factors have not been fully accounted for by the use of the present EM bias algorithm (which has the best possible global accuracy but not the best regional response). In some ocean regions we may go wrong by as much as 3 or 4 cm in terms of the sea level measuring accuracy. I will point out that this may create a serious problem for certain oceanographic applications. Therefore, we have to think how to account for regional variations, I will also suggest to the participants to give some thought to the fact that the information on the sea state (i.e., wind speed and SWH) available directly from the Topex altimeter appears to be insufficient to derive a uniformly valid EM bias correction. Additional information, such as provided by the current SAR Wave Mode measurements from ERS- 1, might help us reduce the uncertainty and obtain better EM bias values for individual ocean regions. Alternatively, we may try constructing geophysical model functions on a region-by-region basis.